



ANKURA

THE SAVIOURS OF NATURE
ECO CLUB NEWS LETTER



ONE OF THE BEST PRACTICES OF BOTANY DEPARTMENT
Eco club received National Environmental Awareness Award
from Khadi and Village Development, New Delhi

VOL - 2

MARCH 2019

ANNUAL

In connection with GOLDEN JUBILEE YEAR (1968-2018)



OUR FOUNDER PRESIDENT
PADMA VIBHUSHAN
Dr. (Smt). Durgabai Deshmukh
Building better lives for women

Nature's beauty stirs the imagination. Environments are not passive wrappings rather they are active processes which are invisible. We cannot say we love the land and then take steps to destroy it for the use by future generations. Nothing can bring back the hour of splendor in the grass, of glory of the flower. Only when we walk with reverence on the earth great things decide to approach us.

CHAIRPERSON'S MESSAGE

Shrinking supplies of fresh water is becoming an issue which cannot be overlooked by any civilized society. Global changing scenarios like urbanization and climate change are contributing to the profound water insecurity. In this context we must take up the steps to conserve water and as responsible citizens it is our primary responsibility to conserve the precious nature's gifts. I congratulate the convener of ANKURA for bringing out a news letter which focuses on sustainability of Environment.



PROF. USHA MUNIPALLE
CHAIRPERSON

CORRESPONDENT'S MESSAGE

Unity in diversity is the ultimate mission of human beings and entire world. Achieving integrity in diversity is the big challenge for which planners, administrators, philanthropists, sociologists and every human being need to strive in all their initiatives. Integrity of Ecology with others aspects of diversity plays a foremost significant role in the present day seasonal and other environmental dilutions. Any effort to improve ecological balance either by providing education on it or plantation movement or motivating all for mass plantation and using products which protect ecological balance and environmental integrity deserves appreciation. I congratulate the Department of Botany of this college for their initiative in educating students and general community in maintaining ecological balance by taking up tree plantation activities, preparation and sale of Ganesha idols with pure soil and rallies educating public about this burning issue. Further the department deserves appreciation for bringing out news letter "ANKURA" as part of this program.



PROF. M. SRINIVAS
HON. SECRETARY AND CORRESPONDENT

PRINCIPAL'S DESK

I am indeed delighted to place before you the new edition of ANKURA". The AMS Arts and Science College for Women is striving for achieving the imbibed goal of Padmavibhushan. Smt. Dr. Durgabai Deshmukh "Women empowerment through education". This is the right time to recall with great satisfaction that the college completed 50 yrs of its successful journey with the contribution of stakeholders, management, alumni, teaching and non-teaching and celebrating Golden Jubilee year 2018-19. The ANKURA provides promotion of plantation and awareness programmes among students and society to save the nature. I convey my best wishes to the convener of Ankura and wish a bright future.



DR. D. RAJESWARI
PRINCIPAL

VICE-PRINCIPAL'S DESK

I deem it my privilege to give a wonderful message to the Eco Club News letter "Ankura". A clean environment is necessary to live a peaceful and healthy life. It is most important that everyone must know how to protect our environment to keep it safe forever.



I am sure this news letter will help the students and create awareness about environment to the coming generations. I congratulate the Convener of Ankura all the best.

DR. PRAJYALAKSHMI
VICE-PRINCIPAL

CONVENER'S DESK

I am glad to inform that Eco Club, Department of Botany is publishing the news letter "Ankura" Volume 2. The news letter focuses on the activities like plantation programme (Haritha haaram) Clay Ganesh Idols, rallies on Environment Protection to care for the mother earth. It is an urgent need of every individual to protect the lakes, rivers, forests, birds, flowers of the world where we live in.



I am happy that we are keeping our efforts to inculcate and spread awareness to bring a change in the society to save the nature.

DR A PRAMILA
ECO CLUB CONVENER

In every walk with nature, one receives far more than he seeks.

VISION

To build youth to become a better person, more disciplined and socially aware, however difficult it may be that helps to protect the environment

MISSION

An Eco-club is a college level, voluntary, student's initiative programme to educate youth about the importance of Environment

AIMS

A platform to launch Environmental Awareness campaigns and initiate environmental action to channelize the constructive ways to protect the environment. Motivate and spread awareness to develop concern and balance with the nature that sustain us.

To involve Eco-club students in Orientation programmes about "Clean and Green Consciousness" to create awareness of Bio diversity conservation and local environment.

OBJECTIVES

- Promotion of plantation, Bio-diversity and survival monitoring
- Promoting clean and safe drinking water
- Energy- save
- Effective land use
- Promoting effective waste management

Water Conservation - A Collective Responsibility

- PROF. USHA MUNIPALLE
CHAIRPERSON, AMSASCW

Shrinking supplies of fresh water is becoming an issue which cannot be overlooked by any civilized society. Global changing scenarios such as urbanization and climate change are contributing to the profound water insecurity. Hence, a holistic approach to cater to this problem is required.

Local Government has an important role in facilitating water conservation as it is responsible for the provision of infrastructure and services; responsible for local environmental management and regulation; and able to provide opportunities for local education, public participation and local action. As responsible citizens of the society it is our primary responsibility to conserve the most precious nature's gift.

In this context let us take an oath to follow the five water conservation principles and contribute to the sacred cause of water conservation.

The Five 'Best Practice' Water Conservation Principles

1. Avoid water use
2. Reduce water use
3. Recycle water
4. Dispose of water appropriately
5. Ensure feedback and adaptive management

First Principle - Avoid

This principle seeks to encourage where possible the use of water, where waterless options exist through the use of alternative techniques to reduce dependency on reticulated water by: Sweeping paths and pavements instead of hosing them; Using dry composting toilets; Using insulation, Shading and natural ventilation to cool houses; and Adopting water free gardens and landscape design.

Second Principle - Reduce

This principle seeks to reduce the amount of water use by: Taking advantage of water efficient landscaping. This can be achieved by:

- Appropriate plant selection; Minimizing lawn areas; Efficient irrigation practices such as the use of water moisture monitors; Garden tap timers;
- Garden mulch to avoid water loss by evaporation; and Permeable rather than impermeable paving, where appropriate.
- Using locally collected and alternative water supplies, for example: Collecting and using rainwater for irrigation and internal household purposes (including drinking when considered safe to do so); Reusing storm water by storing in on-site retention schemes.

Practical installation of water efficient devices:

- AAA rated water-saving fixtures (for example showerheads, dual flush toilets, low flow taps and front-loading washing machines); and Water efficient irrigation, including soil moisture meters and timers. Optimising soil moisture budgets through smart metering systems.

Adopting 'water conservation management practices' that educate residents and local bodies staff about water conservation.

These practices encourage:

- The implementation of watering regimes that result in minimum loss of water by evaporation by watering in the early morning to minimize evaporation loss; Increasing staff awareness and input into management; Regular water auditing and monitoring practices; Reporting water usage and water conservation techniques in annual reports; Repair of water leaks within 24 hours of the leak being detected;
- Retrofitting water efficient devices in buildings and private homes; and Applying a whole-of-life costing approach when developing new (or replacing existing) park and reserve irrigation equipment and Ensuring designers and installers of irrigation systems are cognisant of water conservation techniques.

Third Principle - Recycle

This principle seeks to use waste water or reclaimed water from one application such as waste water treatment for another application. Where health and other regulatory requirements are satisfied, local bodies can encourage recycling by Promoting, for example in their Development Plans, the installation of reuse systems in all new residential developments. When using recycled water, one must ensure that black/grey water that is treated and used in local areas will comply with the Environment Protection (Water Quality) Policy standards.

- This policy seeks to: Avoid discharges into receiving waters; Avoid causing environmental damage;

- Ensure that no listed pollutants are discharged or disposed of into waters or onto certain land; Avoid discharging wastewater onto certain land;
- Avoid discharging wastewater into groundwater except with the approval of the relevant authority.

Fourth Principle - Disposal

This principle seeks to ensure that the disposal of water or treated wastewater that is not recycled or reused does not cause degradation of the catchment, coastal or marine environments.

Fifth Principle - Feedback and Adaptive Management

This principle seeks to ensure feedback and adaptive management is a continuous approach used by local bodies in determining the success of implementation of the best practice principles.

Several indicators from the analyses in a water audit should be considered by utilities in order to improve water loss control procedures. These include:

- 1) **Real Losses** : Losses due to leakage and excess system pressure and the cost of real losses is estimated using the marginal production costs, such as energy and chemicals needed to treat and deliver the water.

Real losses can be reduced by More efficient leakage management, Improved response time to repair leaks, Improved pressure management and level control, and Improved system maintenance, replacement, and rehabilitation.

- 2) **Apparent Losses** : Losses due to meter accuracy error, data transfer errors between meter and archives, data analysis errors between archived data and data used for billing/water balance, and unauthorized consumption including theft. The cost of apparent losses is estimated using the retail commodity rates.

- 3) **Unavoidable Annual Real Losses ("UARL")**

This represents the theoretically low level of annual real losses in millions of gallons daily ("MGD") that could exist in a system if the current best management practices for leak management are successfully implemented. It is based on data obtained from systems where effective leakage management was implemented. The calculation of the UARL is based on number of miles of water mains, number of service connections, average water pressure, and length of service connections. The UARL is allocated to service lines and water mains.

- 4) **Infrastructure Leakage Index ("ILI")**

Ratio of annual real losses divided by UARL. The ILI provides a ratio of current leakage relative to the best level obtainable with current best management practices for leakage. A ratio of 1.0 would indicate that the utility has reduced losses to the theoretically lowest level possible.

- 5) **Economic Level of Leakage ("ELL")**

This is a calculation based on the cost of reducing leakage. It is the theoretical level at which the cost of leakage reduction meets the cost of the water saved through leakage reduction. These costs include not only the cost of producing water but also the avoided cost of replacing the water. In order to reduce water losses due to leakage, a utility should maintain a proactive water loss program. A structured approach to leakage management has proven to be successful in limiting losses.

Potential elements of an active water loss program include:

- a) Conducting regular inspections and soundings of all water main fittings and connections;
- b) Using a water loss modeling program. A model can range from the AWWA M36 Manual Water Audit Spreadsheet to a commercially available statistical model;
- c) Metering individual pressure zones;
- d) Establishing district metering areas ("DMA") and measuring daily, weekly or monthly flows with portable or permanently installed metering equipment;
- e) Continuous or intermittent night-flow measurement;
- f) Installing temporary or permanent leak noise detectors and loggers;
- g) Reducing repair time on leaks since long-running small to medium size leaks can be the greatest volume of annual leakage;
- h) Controlling pressure just above the utility's standard-of-service level taking into account fire requirements, outdoor seasonal demand and requisite tank filling; i) Operating pressure zones based on topography; j) Limiting surges in pressure; and k) Reducing pressure seasonally and/or where feasible to reduce losses from background leaks.

Green is the prime colour of the world and that from which its loveliness arises

Let us join hands to strengthen the functioning of SaciWATERS located in Hyderabad.

SaciWATERS

South Asia Consortium for Interdisciplinary Water Resources Studies, was formed as a project on the theme "water for food and rural development" after the 2000 World Water Forum at the Hague, was established with the aim of bringing a paradigm perspective. Based in Hyderabad, India, the consortium comprises accomplished scholars and activists from Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. SaciWATERS produces new knowledge to address the pressing problems in the water sector in south Asia through education, research and advocacy. It has created a new group of professionals and experts through its Crossing Boundaries Project which aims to contribute to the paradigm shift in water resources management in South Asia by means of various partnership-based programmes for capacity building of water professionals through higher education, innovative and social

learning focused research ("research with an impact"), knowledge based development and networking.

SaciWATERS is involved primarily in four major programs - research, education, capacity building, advocacy and partnership & knowledge mobilisation. Each of these programs has its own focus and mandate. These programs approaches issues from a human development perspective, using knowledge exchange and collaboration to identify challenges and design solutions for the management of the region's water resources.

SaciWATERS offers various volunteer position for students and professionals in the field of research, administration, media management etc. The applicants would be offered the assignments depending on their qualification and area of interest.

If you would like to get involved, please write to them with a detailed CV and a cover letter stating the reasons for your interest at: jobs@saciwaters.org. Please do mention "Internship/Volunteering position" in the subject heading.

Eco club Activities

- ▶ World Environment Day
- ▶ Maintaining Botanical garden
- ▶ Plantation Programme
- ▶ Effective Land use
- ▶ Waste Management
- ▶ Energy save
- ▶ Water Use
- ▶ Campus cleaning
- ▶ Plastic free zone in the college campus
- ▶ Guest lectures on Environmental Awareness
- ▶ Making and distribution of ecofriendly Ganesh idols
- ▶ Telangana ku Haritha Haaram programme (2015,2016,2017, 2018)
- ▶ Team leaders educating on environmental awareness

PLASTIC POLLUTION

AN ARTICLE IN REGARD WITH THE WORLD ENVIRONMENT DAY – 2019

Mother Nature has been nurturing us since the cradling days of human evolution. But somehow we see her as a small part of our lives today, forgetting or rather ignoring the fact that we are the tiny part of the whole enchilada. One of the major threats to the nature is plastic pollution. This is something almost irrevocable because the kind of material prepared is indestructible. In fact taking the time of minimum 450 years to get degraded, every part of the plastic ever produced is present on the earth even today in some or the other form. Apart from this we have produced more amount of plastic this decade than that of the whole century. The most pleasing reason for this can be that the plastic is used for the products which are the part of our everyday lives and we are somehow forced to use them for our needs like carry bags, water bottles, tea cups, plates etc. These kind of tiny reasons sum up for a truck sized or even more dumped waste every day. The dumping is done on the bare lands which affect the micro organisms and animals. Whereas, dumping in the seas poses a high threat because plastic being a material which floats on water, covers the surface area blocking the air exchange. It also enters the food chain through the aquatic organisms even affecting the organisms that consume them. There are some products so called degradable plastics. They can be degraded but to some extent only, leading to the post-degraded products some of which are harmful than that of the non-degraded plastic.

The plastic produced till today is however not in a position to be eliminated completely. Hence at least from now we must stop the single usage plastic. As this is a very big task, it should be taken up in a progressive manner even banning plastic usage for at least small items like teacups, plates, bottles etc in coming days. There is great need to improvise the usage of cloth bags, Copper bottles, glassware and eco-friendly goods etc.

If anything does not highly impact you, it is not that everything is alright. We need to be foresighted about the nature. Nature is a silent speaker. Who could understand the words of nature, are the ones who really care for nature. We are the part of nature and what we do to it is ultimately what we do to ourselves. The major threat to the environment is living in the blind belief that someone else will save it. Green- good deeds should become the part and parcel of one's life. Every part of the nature is sacred and beautiful; Every shining pine needle, every sandy shore, every mist in the dark woods, every clear and humming insect, every dew drop on the grass edge is beautiful in its own way. What is man without nature? Finally, we need to respect existence or else expect resistance, which I hope we would gather not.

M. Maithri. BZC II Yr

Warm Petals may attract chilly bees

The bird foot violet is a common spring wild flower in parts of North America. It comes in two differently coloured varieties. This two toned petals may attract bees by providing a warm spot to rest their chilly bums. Dark objects especially black objects tend to heat up in the sun more than light objects do. Dark petals of bird foot violet are not black. But their purple is so dark that it looks almost black. It is called optic black effect. This optic blackness made the dark purple petals warmer than lighter ones. Studies revealed that dark purple petals are about 3°C warmer than purple ones. For cold blooded insect landing on flower that's a big difference. It's really exciting that something as simple as the colour of a flower can give us insights on important issues like why there is variation in the biological world.

A. Harika BZC III Yr

The tree that waters itself

Island gigantism might have driven the evolution of one of the most bizarre adaptations in the plant kingdom. The stilt roots of Pandanus have a network of aqueducts channel water to a dedicated organ to spongy tissue at the root tip which is sometimes suspended in mid air.

E. Vijaya Bai BZC III Yr

Once there was a Planet
Which looked like a blue goblet
Full of plants and trees
Showing their natural greens
Suddenly came the humans
Startled all the planet
Air, water, creation
Bleeding in its pollution
What are they doing?
What are they gaining?
In the greed of achieving
Whole world they are losing.

A. Malavika BZC II Yr

I was happy when you arrived on my planet
Thought of getting love but didn't expect the conflict!
I wanted you pure but you left in taint.
I was clean with air and you made hound of it
My blood was green until your smoking made it husking
My flesh was fruitful and you looked that like learren
What to do, you left in vain even if I leak.
You will be engulfed in my tears.
Oh god! Please bless this child
Let him know he is human and make him remember his manners,
What was your purpose to let me die?
You imbecile! I assure you can't live without me
As far as you are within me
What do you want and What should I do?
Just wanted to relish and now I look myself in rage
Now I perceive... I was happy until you arrived on my planet.

Y. Krishna Thejesvi BZC II Yr

The greatest threat to the planet is the belief that someone else will save it

THE SUB-COMMITTEE MEMBERS OF DIFFERENT STREAMS IN ECO CLUB.

1. Promotion of Plantation, Bio-Diversity and survival Monitoring.
- Dr.A.Pramila
2. Promoting Clean and Safe Drinking Water
- Dr.KB Shantisudha
3. Energy-Save
- Mrs.P.Sandhya
4. Effective Land Use
- Mrs.A.Swapna
5. Promoting Effective Waste Management
- Dr.K.Kiranmal

Student organization of Eco club

PRESIDENT : A.HARIKA
VICE PRESIDENT: DIVYA PRANITHA
SECRETARY : U. ABHISHTA
TREASURER : VIJAYA HARATHI

ECO CLUB TEAM LEADERS

STREAM	TEAM LEADER
Promotion of Plantation, Bio-Diversity and survival Monitoring.	Vijaya Bai M.Maithri Percy Jyothsna
Promoting Clean and Safe Drinking Water	Abhishta Ch.Manjula, Divya
Energy-Save	Anjali Krishna Thejesvl Saba
Effective Land Use	Mani jyothi T.Jaya Madhurl, Mamatha
Promoting Effective Waste Management	Hima Bindu M.Pravallika Yamini

Editorial committee

Dr .A .Pramila (Editor)
 Ms .A.Harika- BSc (BZC) III yr
 Ms.M.Maithri- BSc (BZC) II yr
 Ms.A.Malavika- BSc (BZC) II yr

ECO CLUB ACTIVITIES (JUNE 2018 – MARCH 2019)

- Ø In connection with the "World Environment Day" 2018 Eco-club organized plantation programme. The members and the students planted the seedlings of Medicinal Plants in the botanical garden.
- Ø In connection with the "Telanganaku Harithahaaram - 2019" Programme, the Convener of the Eco club, Dr.A.Pramila organized plantation programme in the college campus on 16 August 2018. Prof.M.Srinivas, Hon.Sec & Correspondent, Dr.G.N.Bhagya Rekha, Principal, Dr.D.Rajeswari, Academic coordinator along with all the faculty and the students planted the saplings and participated in the programme. The programme Started with rally to bring awareness on protection of environment. Everyone pledged to protect the nature
- Ø The Eco Friendly Ganesh Idols were prepared by the students and sale was organized on 12-September 2018 in connection with the "Ganesh Chaturdhi" to bring awareness on clay Ganesh idols in making the environment pollution free.

Dr.A.Pramila Eco club Convener

Thanks

My hearty thanks to each and every person who made this news letter possible. Without their efforts this newsletter could not take a form. My special thanks to Chairperson, Hon .Secretary & Correspondent , Principal and Vice principal of the college for supporting in releasing this Newsletter.

- Editorial committee

VIEWS AND SUGGESTIONS

We welcome, encourage and value all your suggestions

If any suggestions or ideas to be implemented or articles related to *Ankura* you are most welcome to send us through mail. Please mail it to us on ecoclub18ams@gmail.com

ECO CAPTURES

WORLD ENVIRONMENT DAY



TELANGANA KU HARITHA HAARAM



ECO-FRIENDLY GANESH IDOLS



Nature has a great simplicity and therefore a great beauty